

Paper Rocket Design Team Unit

Request for Proposal

America's space program has invited the nation's commercial aerospace companies to become more engaged in the competitive design and construction of the next generation of rockets to fly in low Earth orbit. As a part of this process, each company will submit a competitive proposal to receive funding for this project. Budgetary awards will be presented based upon the merits of the team's proposal in three tiers of funding:

Tier One: \$1,000,000,000 Tier Two: 50,000,000 Tier Three: 30,000,000

Initial Proposals must include the following:

Project Journal (Team Notebook submitted in a 3-prong pocket folder)

Completed for Initial Submission and Budget Award

1. Creative Cover with the company name & logo
 - a. 1 sheet showing the image or photo that will represent your company
 - b. In the final submission, must be in color for inside title page or cover of folder.
2. Certificate of Assumed Name (fully completed) Form Only
3. Rocket Measurements for Scale Drawing
 - a. **Listing** on this form of the Body Tube, Nosecone, Fins with proposed measurements
 - b. Measurements should change as rocket is built and modifications made
4. Scale drawing and plan for the paper rocket
 - a. Body tube, nose cone and no less than three directional fins
 - Two views: side and rear views
 - Side- shows body tube, nosecone and fins assembled and labeled
 - Rear-shows alignment of fins
 - b. Metric measurements (**centimeters**) Graph paper should represent 1 square = 0.5 centimeters (2 squares = 1 cm) ***Use rulers and be neat!!***
5. Develop a projected budget for the project
 - a. Use Projected Budget Form
 - b. Measured drawing will tell you how long the rocket is, how many fins, how long the nosecone is, etc... figure out the tape and paper needs from this. Estimate these for your budget.

Forms Included in Proposal for Initial Submission - to be completed upon award of funding for final grade

6. Balance Sheet
 - a. This is your company "checkbook"
 - b. Add your starting balance or award and subtract or add as business is conducted each day.
 - If you make contracts (deals) with other companies compete the checks and purchase orders for them like you would for the class project materials supply.
7. Canceled Checks stapled to the page in ascending numerical order (3 to a page)
 - a. Checks returned by the teacher after use for materials
 - b. Keep your number sequence running with your purchase orders
8. Pre-launch analysis and testing (Form Completion – Design and Launch Director)
9. Communications Director Media Reports and Images submitted via email to teacher daily
10. Rocket Launch Day Log (Form Completion – Design and Launch Director)
11. Score Sheet (Form Completion, partially by Budget Director and remainder by Teacher)

Project Budget Information (Budget Director and Project Manager)

Each contractor team will be responsible for accurately managing their project budget. You may generate additional funds by providing contracted services under separate contracts within your classroom and through bonuses received as incentives for innovations or achieving exemplary outcomes during testing. Projects operating in the “red” or spending more funds than budgeted will receive demerits to their scores (grades). If your project has no funding at the time that launches are to occur, your team will not be able to purchase rocket fuel to launch.

Approved Subcontractor List			
Subcontractor (written on checks)	Item (Listed in Purchase Orders & on Checks)	Market Price	When?
AeroJax Equipment Rental	Scissors	\$10,000/period	Every building period
	Ruler	\$10,000/period	Every building period
	Restocking Fees (materials case not properly reset)	\$20,000	If a mess is left behind, every building period
Graph E Tee Rental	Color Pencils (3)	\$35,000/period	Color drawing on finished rocket (1 period)
Adhesion Tape & Glue Co.	Masking Tape/12cm	\$50,000	Every building period
	Cellophane tape/12cm	\$60,000	“
	Glue Stick usage for 1 period	\$100,000	“
International Paper Products	Card stock/sheet	\$100,000	Option for Body Tube
	White copy paper/sheet	\$75,000	Option for Body Tube
	Prototype Graph Paper (required) <ul style="list-style-type: none"> • Body Tube/sheet • Fins/sheet 	\$80,000 \$50,000	1 st rocket build Required use Total \$130,000
	Index Card/3” x 5”	\$30,000	Optional for fins
Heavenly Air Corporation	Rocket Launching Fuel/2 liter Bottle	\$50,000	Required for “each” Stomp Launch
Spaceport USA	Launch Facilities	\$100,000	1 lease is good for 2 Stomp Launches
Cal Q. Later Accounting	Budget Audit Service	\$100,000	Each check of balance sheet
Aerospace Consultations	Questions	\$5,000	Outside of Group and “free” professional development sessions
	Fees & penalties for misconduct	\$3,000 – 20,000/occurrence	

All materials purchased through the officially approved contractors listed will be charged the cost of materials posted.

A Project Delay Penalty Fee will be assessed for teams not working on-task, lacking materials or other behaviors that deter progress on the funded project. The maximum penalty may not exceed \$300,000 per period.